WHAT IS CLAIMED IS

1. A system for coupling a signal having a selected polarization to a first signal path having a first polarization, wherein said selected polarization of said signal is selectable from a plurality of polarizations including said first polarization and a second polarization, said system comprising:

means for coupling a second signal path having said selected polarization to said first signal path;

means for propagating said signal between said first signal path and said second signal path; and

means for manipulating the polarization of said signal as propagated by said propagating means to include a same change in polarization irrespective of a particular polarization of said plurality of polarizations said selected polarization is.

2. The system of claim 1, wherein said propagating means comprises:

means for guiding a wave through said coupling means.

3. The system of claim 2, wherein said wave guiding means is an opening in said coupling means having a predetermined width, height, and depth.

4. The system of claim 2, wherein said wave guiding means is an opening in said coupling means disposed so as to be offset from said first polarization and said second polarization by an equal amount thereby providing said manipulating means.

5. The system of claim 2, wherein said second polarization is substantially orthogonal to said first polarization and said offset is substantially 45°.

6. The system of claim 1, wherein said second signal path comprises:

means for providing radio frequency communications having said selected polarization, wherein said radio frequency communications means may be coupled to said coupling means in a first orientation associated with said first polarization and a second orientation associated with said second polarization.

7. The system of claim 6, wherein said first signal path comprises:

means for transceiving radio frequency communications having said first polarization.

8. The system of claim 1, wherein said signal is a radio frequency signal in the range of 2 to 110 GHz.

9. A dual polarization plate comprising:

a plate adapted to couple to a first communication signal path portion having a particular signal polarization associated therewith and a second signal path portion having a particular signal polarization associated therewith; and

a signal path portion disposed through said plate, wherein said signal path portion is disposed to present a same amount of offset with respect to said particular polarization of said first communication signal path portion and said particular polarization of said second communication signal path portion when said first communication signal path is polarized cross-polarized with said second communication signal path and when said first path communication signal path is polarized co-polarized with said second communication signal path.

10. The dual polarization plate of claim 9, wherein said second signal path portion may be selectively coupled to said polarization plate in either a co-polarized orientation or a cross-polarized orientation.

11. The dual polarization plate of claim 9, wherein said signal path portion disposed through said plate is a waveguide.

12. The dual polarization plate of claim 11, wherein said waveguide is of a length selected to provide a desired signal path attribute with disposed between said first signal path portion and said second signal path portion.

13. The dual polarization plate of claim 12, wherein said desired signal path attribute includes a desired impedance.

14. The dual polarization plate of claim 12, wherein said desired signal path attribute includes signal filtering.

15. The dual polarization plate of claim 11, further comprising:

a tapered portion disposed in a face of said plate adjacent to said signal path portion.

16. The dual polarization plate of claim 15, wherein said tapered portion includes a first slope associated with a polarization substantially co-polarized with respect to said particular polarization of said first communication signal path and a second slope associated with a polarization substantially cross-polarized with respect to said particular polarization of said first communication signal path.

17. The dual polarization plate of claim 9, wherein said plate is substantially permanently attached to said first signal path portion and is adapted to removably receive said second signal path portion

18. The dual polarization plate of claim 17, wherein said attachment of said polarization plate to said first signal path portion includes a waveguide rotator section to smoothly transition between said particular polarization of said first communication signal path and said amount of offset associated with said signal path portion disposed through said plate.

19. The dual polarization plate of claim 17, wherein said first signal path portion is associated with a radio communication apparatus and said second signal path portion is associated with a polarized antenna.

20. The dual polarization plate of claim 19, wherein said first signal path portion is associated with a polarized antenna and said second signal path portion is associated with a radio communication apparatus.

21. A waveguide having a first portion coupled to a second portion, wherein said waveguide is adapted to accept said second portion for coupling to said first portion in both a substantially same polarization orientation and a substantially orthogonal polarization orientation, said waveguide comprising:

an adaptor disposed between said first portion and said second portion when coupled; and

a signal path opening disposed in said adaptor to provide communication between said first portion and said second portion, wherein said signal path opening is adapted to present substantially consistent signal path attributes when said second portion is coupled in said same polarization orientation and in said substantially orthogonal polarization orientation.

22. The waveguide of claim 21, wherein said adaptor comprises a plate which may be removably coupled to said first portion and said second portion.

23. The waveguide of claim 21, wherein said adaptor is integral to said first portion.

24. The waveguide of claim 23, wherein said integral adaptor includes a transition region to provide a signal polarization transition between a polarization of a signal as propagated through said first portion and a polarization of said signal as propagated through said signal path opening.

25. The waveguide of claim 21, wherein said adaptor comprises a tapered orifice to provide a signal polarization transition between a polarization of a signal as propagated through said second portion and a polarization of said signal as propagated through said signal path opening.

26. The waveguide of claim 21, wherein said signal path opening comprises a waveguide.

27. The waveguide of claim 26, wherein said waveguide is approximately 1/4 λ in length.

28. A method for coupling a signal to a first signal path having a first polarization, said method comprising the steps of:

selecting a polarization of said signal from a plurality of polarizations including said first polarization and a second polarization;

coupling a second signal path having said selected polarization to said first signal path;

propagating said signal between said first signal path and said second signal path; and

manipulating the polarization of said signal as propagated by in said propagating step to include a change in polarization irrespective of a particular polarization of said plurality of polarizations said selected polarization is selected to be.

29. The method of claim 28, wherein said propagating step comprises the step of:

guiding a wave through said coupling means.

30. The method of claim 29, wherein said propagating step comprises:

providing an opening in a coupler utilized in said coupling step, wherein said opening is disposed so as to be offset from said first polarization and said second polarization by an equal amount thereby providing said manipulating means for use in said manipulating step.

31. The method of claim 28, further comprising the step of:

deploying a polarized antenna associated with said second signal path in an orientation consistent with said selected polarization, wherein said polarized antenna

may also be deployed in a second orientation orthogonal to said selected polarization if selected from said plurality of polarizations.

32. A system for selectively coupling either of two orthogonally polarized signals between an antenna structure and a radio equipment apparatus, said system comprising:

an antenna structure adapted for use with either of said orthogonally polarized signals, said antenna structure including a polarized waveguide;

a radio equipment apparatus including a polarized waveguide; and

a polarization plate disposable between said antenna waveguide and said radio equipment apparatus waveguide, wherein said polarization plate includes a waveguide there through which is adapted so as to be equally offset from said polarization of said waveguide of said radio equipment apparatus, said waveguide of said antenna when disposed for use with a first one of said orthogonally polarized signals, and said waveguide of said antenna when disposed for use with a second one of said orthogonally polarized signals.

33. The system of claim 32, wherein said antenna structure includes a horn antenna adapted for communication in frequencies of the microwave spectrum of frequencies.

34. The system of claim 32, wherein said radio equipment apparatus is a microwave transceiver front end.

35. The system of claim 32, wherein said polarization plate includes two substantially planar parallel surface portions having said waveguide disposed substantially orthogonally there through, wherein a first said substantially planar surface portion interfaces with said waveguide of said radio equipment apparatus and a second said substantially planar surface portion interfaces with said waveguide of said antenna structure.

36. The system of claim 32, wherein said polarization plate is substantially permanently attached to said at least one of said waveguide of said radio equipment apparatus or said waveguide of said antenna structure.

37. The system of claim 36, wherein said polarization plate includes a rotator portion associated with said substantially permanently attached waveguide.

38. The system of claim 32, wherein said orthogonal signals are a vertically polarized signal and a horizontally polarized signal.

39. The system of claim 32, wherein said orthogonal signals are a slant left polarized signal and a slant right polarized signal.